CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification										DATE: **February 2004**	
APPROPRIATION/BUDGET ACTIVITY **RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7**						R-1 ITEM NOMENCLATURE PE 0204574N Advanced Cryptologic Systems Engineering					
COST ($ in Millions)	Prior Years Cost	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Program
Total PE Cost	**0.000**	**0.000**	**0.000**	**1.448**	**1.460**	**1.466**	**1.465**	**1.467**	**1.469**	**Continuing**	**Continuing**
3091 / Advanced Cryptologic Systems Engineering				**1.448**	**1.460**	**1.466**	**1.465**	**1.467**	**1.469**	**Continuing**	**Continuing**
											0.000
											0.000
											0.000
											0.000
											0.000
Quantity of RDT&E Articles											**0**

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Advanced Cryptologic Systems Engineering program develops state-of-the-art signal acquisition software in response to Combatant Command requirements for a quick-reaction surface, subsurface and airborne cryptologic carry-on capability. There are approximately 100 cryptologic capable surface ships in the current Navy inventory. Each of these ships is a potential user of this carry-on equipment, depending on deployment schedules and the tempo of operations. In addition, there are numerous subsurface and air platforms that are also potential users. This funding line will provide the necessary and proper resources to enable rapid transition of available Commercial Off The Shelf (COTS) and Government Off The Shelf (GOTS) technologies that apply to Fleet requirements for carry-on system functionalities. These technologies typically require various levels of integration to leverage on-board systems that provide system and mission management, product reporting and data analysis. COTS/GOTS system documentation and training materials usually requires some level of adaptation or modification to meet fleet operator requirements, or entirely new training materials may need to be developed. Before deployment for operational use, systems must be systematically tested to ensure suitable and reliable operation, tested for network vulnerabilities if connected to shipboard LANs, and tested relative to interoperability requirements. Additionally, the future Maritime Cryptologic Architecture (MCA) realized under Ships Signals Exploitation Equipment (SSEE) Increment E and subsequent increments will be procured under Cryptologic Carry-On Equipment as a future carry-on Advanced Cryptologic Carry-on Equipment (ACCES) system starting in FY04. This RDT&E will provide resources to address rapid deployment of enhancements or improvements to the common hardware and/or software baseline to meet emergent requirements.

(**U) JUSTIFICATION FOR BUDGET ACTIVITY:**

This program is funded under BA-7, OPERATIONAL SYSTEMS DEVELOPMENT because it encompasses engineering and manufacturing development for upgrade of existing operational systems.

R-1 SHOPPING LIST - Item No. 173

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification										DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT NUMBER AND NAME PE 0204574N Advanced Cryptologic Systems Engineering					PROJECT NUMBER AND NAME 3091 / Advanced Cryptologic Systems Engineering					
COST ($ in Millions)	Prior Years Cost	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Program
Project Cost				**1.448**	**1.460**	**1.466**	**1.465**	**1.467**	**1.469**	**Continuing**	**Continuing**
RDT&E Articles Qty											**0**

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Advanced Cryptologic Systems Engineering program develops state-of-the-art signal acquisition software in response to Combatant Command requirements for a quick-reaction surface, subsurface and airborne cryptologic carry-on capability. There are approximately 100 cryptologic capable surface ships in the current Navy inventory. Each of these ships is a potential user of this carry-on equipment, depending on deployment schedules and the tempo of operations. In addition, there are numerous subsurface and air platforms that are also potential users. This funding line will provide the necessary and proper resources to enable rapid transition of available Commercial Off The Shelf (COTS) and Government Off The Shelf (GOTS) technologies that apply to Fleet requirements for carry-on system functionalities. These technologies typically require various levels of integration to leverage on-board systems that provide system and mission management, product reporting and data analysis. COTS/GOTS system documentation and training materials usually requires some level of adaptation or modification to meet fleet operator requirements, or entirely new training materials may need to be developed. Before deployment for operational use, systems must be systematically tested to ensure suitable and reliable operation, tested for network vulnerabilities if connected to shipboard LANs, and tested relative to interoperability requirements. Additionally, the future Maritime Cryptologic Architecture (MCA) realized under Ships Signals Exploitation Equipment (SSEE) Increment E and subsequent increments will be procured under Cryptologic Carry-On Equipment as a future carry-on Advanced Cryptologic Carry-on Equipment (ACCES) system starting in FY04. This RDT&E will provide resources to address rapid deployment of enhancements or improvements to the common hardware and/or software baseline to meet emergent requirements.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE 0204574N Advanced Cryptologic Systems Engineering	3091 / Advanced Cryptologic Systems Engineering

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost			1.448	1.460
RDT&E Articles Quantity				

Cryptologic Carry-On Equipment
FY04 - Integrate, test and document identified Commercial and Government off-the-shelf technologies and subsystems that meet emergent and on-going Fleet requirements. Develop and integrate software and/or hardware improvements to Advanced Carry-on Cryptologic System (ACCES) baseline.
FY05 - Continue to integrate, test and document identified Commercial and Government off-the-shelf technologies and subsystems that meet emergent and on-going Fleet requirements. Develop and integrate software and/or hardware improvements to Advanced Carry-on Cryptologic System (ACCES) baseline.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE 0204574N Advanced Cryptologic Systems Engineering	3091 / Advanced Cryptologic Systems Engineering

(U) C. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2003	FY 2004	FY 2005
Previous President's Budget:	0.000	1.466	1.468
Current BES/President's Budget	0.000	1.448	1.460
Total Adjustments	0.000	0.018	0.008
Summary of Adjustments			
Sec. 8094: Management Improvements	0.000	-0.004	0.000
Sec. 8125: Efficiencies/Revised Econ. Assumptions	0.000	-0.012	0.000
PBD 430 WCF - R&D - SPAWAR	0.000	0.000	-0.001
PBD 426 Rates - SSC	0.000	0.000	0.001
PBD 604 - Inflation/Non purchase inflation	0.000	0.000	-0.005
Misc. Navy Adjustments	0.000	-0.002	-0.003
Subtotal	0.000	-0.018	-0.008

(U) Schedule:

Not Applicable

(U) Technical:

Not Applicable

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE 0204574N Advanced Cryptologic Systems Engineerin	3091 / Advanced Cryptologic Systems Engineering

(U) D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Cost
OPN Line 3501	20.073	18.511	19.64	19.079	20.601	20.414	19.855	Continuing	Continuing
OMN 4B7N PE 0702827N	2.477	2.602	2.948	2.909	3.064	3.086	3.212	Continuing	Continuing

(U) E. ACQUISITION STRATEGY:

Acquisition, management and contracting strategies are to support engineering and manufacturing development by providing funds to SSC-Charleston, SSC-San Diego and miscellaneous contractors, with management oversight by SPAWAR.

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: **February 2004**				
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**			PROGRAM ELEMENT PE 0204574N Advanced Cryptologic Systems Engineering			PROJECT NUMBER AND NAME 3091 / Advanced Cryptologic Systems Engineering						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	
Ancillary Hardware Development											0.000	
Aircraft Integration											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering	Various	Various				0.166	12/03	0.166	12/04	Continuing	Continuing	Continuing
Training Development											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			0.000	0.000		0.166		0.166		Continuing	Continuing	Continuing
Remarks:												
Development Support											0.000	
Software Development	Various	Various				0.982	12/03	1.000	12/04	Continuing	Continuing	Continuing
Integrated Logistics Support										Continuing	Continuing	Continuing
Configuration Management										Continuing	Continuing	Continuing
Technical Data											0.000	
Studies & Analyses											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			0.000	0.000		0.982		1.000		Continuing	Continuing	Continuing
Remarks:												

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: **February 2004**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**		PROGRAM ELEMENT PE 0204574N Advanced Cryptologic Systems Engineering				PROJECT NUMBER AND NAME 3091 / Advanced Cryptologic Systems Engineering						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation						0.050	12/03	0.050	12/04	Continuing	Continuing	Continuing
Operational Test & Evaluation											0.000	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			0.000	0.000		0.050		0.050		0.000	0.100	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support						0.215	Various	0.207	Various		0.422	
Travel						0.035	Various	0.037	Various		0.072	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			0.000	0.000		0.250		0.244		0.000	0.494	
Remarks:												
Total Cost			0.000	0.000		1.448		1.460		Continuing	Continuing	
Remarks:												

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CLASSIFICATION:

EXHIBIT R4, Schedule Profile — DATE: **February 2004**

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, N / BA-7**

PROGRAM ELEMENT NUMBER AND NAME: PE 0204574N Advanced Cryptologic Systems Engineering

PROJECT NUMBER AND NAME: 3091 / Advanced Cryptologic Systems Engineering

Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones																																
Prototype Phase																																
System Development										SDR				SDR				SDR				SDR				SDR				SDR		
HW/SW Delivery																																
Software																																
Test & Evaluation Milestones											OA				OA				OA				OA				OA				OA	
Operational Assessment																																
Production Milestones																																
Delivery																																

R-1 SHOPPING LIST - Item No. 173

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **February 2004**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT PE 0204574N Advanced Cryptologic Systems Engineering				3091 / Advanced Cryptologic Systems Engineering			
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Prototype Phase			1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
System Design Review (SDR)			2Q	2Q	2Q	2Q	2Q	2Q
Operational Assessment (OA)			3Q	3Q	3Q	3Q	3Q	3Q
HW/SW Delivery			3Q/4Q	3Q/4Q	3Q/4Q	3Q/4Q	3Q/4Q	3Q/4Q

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